



## **Economic Impact Analysis Virginia Department of Planning and Budget**

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### **12 VAC 5-120 – Testing Children for Elevated Blood-Lead Levels Virginia Department of Health June 21, 2001**

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The Department of Planning and Budget (DPB) has analyzed the economic impact of this proposed regulation in accordance with Section 9-6.14:7.1.G of the Administrative Process Act and Executive Order Number 25 (98). Section 9-6.14:7.1.G requires that such economic impact analyses include, but need not be limited to, the projected number of businesses or other entities to whom the regulation would apply, the identity of any localities and types of businesses or other entities particularly affected, the projected number of persons and employment positions to be affected, the projected costs to affected businesses or entities to implement or comply with the regulation, and the impact on the use and value of private property. The analysis presented below represents DPB's best estimate of these economic impacts.

### **Summary of the Proposed Regulation**

The proposed regulation establishes a protocol for health care providers to use in identifying and testing children for elevated blood-lead levels. The regulation also requires the reporting of all laboratory blood-lead test results to the Virginia Department of Health.

### **Estimated Economic Impact**

Although no threshold for the toxic effects of lead has been identified, the negative effects of lead exposure on the cognitive development of young children have been widely demonstrated.<sup>1</sup> Some researchers have also found associations between lead exposure and weakness in attention, aggression, somatic complaints, and antisocial or delinquent behaviors<sup>2</sup>.

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<sup>1</sup> National Research Council. *Measuring Lead Exposure in Infants, Children, and Other Sensitive Populations*. Washington, DC: National Academy Press; 1993.

<sup>2</sup> Sciarillo W.G., Alexander G. Farrell K.P. Lead exposure and child behavior. *American Journal of Public Health*. 1992; 82:1356-1360. Neddleman H.L. et.al, Bone lead levels and delinquent behavior. *Journal of the American Medical Association*. 1996; 275:363-369.

The identification and testing protocol set forth in the proposed regulation is based on guidelines published by the Centers for Disease Control and Prevention (CDC) in 1997. In the development of these guidelines, CDC quantitatively compared the economic costs and benefits of universal screening (previously recommended by CDC in 1991) as the prevalence of elevated blood-lead levels varied. According to the American Academy of Pediatrics, the 1997 CDC guidelines provide “a basis for public health authorities to decide on appropriate screening policy using local blood-lead level (BLL) data and/or housing data collected from the U.S. Bureau of the Census. This strategy is intended to increase the screening and follow-up care of children who most need these services ... and to reduce unnecessary testing of children unlikely to be exposed to lead. These new recommendations will have important ramifications on pediatricians’ efforts to participate in early identification, treatment, and eradication of childhood lead poisoning.”<sup>3</sup>

The proposed testing protocol seems to have a sound scientific basis for effective and efficient screening of children and is likely to promote early identification of children with elevated blood-lead levels, prevent increased exposure to lead, and possibly reduce long term medical and social costs associated with lead poisoning. An increase in the number of blood-level tests performed can also be expected; however the magnitude of this increase is unknown since the current number of children tested is not available. The average cost per test ranges from \$25 to \$50 per test, depending on the location. Medicaid and most insurance plans cover blood-lead level tests for children and tests performed at local health clinics are provided at no charge to the recipient.

Required reporting of test results will allow more comprehensive analysis by VDH to better identify target populations and geographic areas for intervention. Development of a web-based laboratory-reporting page over the next two years by VDH is expected to cost \$90,000 and system maintenance is estimated at \$12,000 to \$18,000 per year. Funding for this project has been requested from the Centers for Disease Control and Prevention, Childhood Lead Poisoning Prevention Program grant. Additional support may be funded by the Title V Maternal and Child Health grant. There are currently 15 to 18 clinical laboratories in Virginia that process blood-lead level tests. Compliance with the new reporting requirement will have a minimal effect for six of

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<sup>3</sup> American Academy of Pediatrics. *Policy Statement: Screening for Elevated Blood Lead Levels (RE9815)*. June 1998.

those labs that are currently reporting to VDH on a continuous basis. For the other nine to twelve labs, VDH estimates the new requirement could increase costs for each lab by \$500 to \$3,500 per year, depending on the volume of test performed. Changing to an electronic means of reporting is likely to reduce costs for labs that are currently submitting paper test results and will also result in savings for VDH staff time by eliminating manual data entry of paper test results.

The following table summarizes the anticipated effects resulting from promulgation of this regulation. While the overall net economic impact is not measurable at this time, it is likely to be positive.

**Estimated Economic Impacts of the Proposed *Regulations for Testing Children for Elevated Blood-Lead Levels (12 VAC 5-120)***

Expected Effect	Estimated Cost	Estimated Benefit
Development of a web-based laboratory reporting page:		
Initial development (FY 2002)	\$45,000	
Expansion to facilitate exchange of information between VDH and local health departments (FY 2003)	\$45,000	
System maintenance	\$12,000 to \$18,000 per year	
Additional blood-lead level tests - unknown magnitude	\$25 to \$50 per test	
Required electronic reporting of all blood-lead level test results:		
Six laboratories currently reporting to VDH on a continuous basis	minimal	
Nine to twelve laboratories not currently reporting to VDH on a continuous basis	\$500 to \$3,500 per year	
Six laboratories currently submitting (continuous or intermittently) paper test results		not quantifiable, but likely significant
Savings in VDH staff time by eliminating manual data entry of paper test results		not quantifiable, but likely significant
More comprehensive reporting allowing VDH to better identify target populations and geographic areas for intervention		not quantifiable, but likely significant
Early identification of children with elevated blood-lead levels, prevention of increased exposure, reduction in long term medical and social costs associated with lead poisoning		not quantifiable, but likely significant

## Businesses and Entities Affected

The proposed regulation will affect all clinical laboratories that process blood-lead tests. VDH estimates that there are currently 15 to 18 facilities in Virginia that would be affected.

## Localities Particularly Affected

The proposed regulations are not expected to uniquely affect any particular localities.

## **Projected Impact on Employment**

The proposed regulations are not expected to have any significant impact on employment.

## **Effects on the Use and Value of Private Property**

The proposed regulations are not expected to have any significant effects on the use and value of private property.